

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C.**

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**JUL 22 1996**

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

**In the Matter of:**

**GRANDFATHERED SHORT-SPACED  
FM STATIONS**

**MM DOCKET NO. 96-120  
RM-7651**

**DOCKET FILE COPY ORIGINAL**

**To: The Commission**

**COMMENTS OF COMMUNICATIONS TECHNOLOGIES, INC.**

The Radio Frequency and Broadcast Engineering consulting firm of *Communications Technologies, Inc. ("CTI")* herein files comments concerning the above noted Notice of Proposed Rule Making. CTI is regularly engaged in the preparation of engineering statements and the engineering portion of FCC Form 301 Applications for Construction Permit, and has a number of clients which are grandfathered short-spaced FM stations that would be impacted by the proposed Rule changes.

1. CTI shares the view that *Section 73.213* of the Commission's Rules and Regulations should be modified to streamline processing, lift unnecessary restrictions, and provide grandfathered short-spaced FM stations ("grandfathered stations") greater flexibility in improving their facilities. *Section 73.213(a)*, as now written, many times penalizes an FM station significantly when an improvement is proposed. Based on our experience, this occurs most obviously when a station wishes to use its current site by increasing its HAAT with a corresponding decrease in ERP, to maintain an equivalent facility, ( i.e., a change from 50 kW @ 150 m HAAT to 12.5 kW @ 300 m HAAT). On many occasions, this causes the proposed 60 dBu to exceed the licensed 60 dBu in some directions in violation of the current Rule Section. However, distance to the F(50,10) interfering contours is generally reduced by a change of this nature but the Rule does not take into account this reduction of interference to other stations.

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2. Due to the inequity described above, CTI supports Proposal 1. However, CTI believes that even this proposal is too restrictive for the case of an FM station which proposes to use its licensed site location, or one within 5 seconds of latitude and/or longitude, of the current site. Establishing a relaxed standard for stations modifying at an existing site, or a site within approximately 500 feet of the existing site, would provide latitude for site corrections anticipated as a result of the Commission's new tower registration program or the need to build a replacement tower adjacent to an existing tower. A new *Section 73.213(a)(3)* would be added:

"Stations that wish to improve their facilities at their existing site, or within 500 feet of their existing site, will be allowed to do so without the need for an interference analysis provided that the licensed ERP/HAAT contour distance is not exceeded based on the eight radial average HAAT shown on the station license. Stations employing a directional antenna pattern, and that wish to employ this Rule Section, cannot increase relative field at any azimuth bearing over the value currently authorized."

3. In paragraph 14 of the NPRM, total interference is described as the sum of all interference, caused and received. CTI agrees that a proposed facility change should not cause an increase in interference to any other grandfathered station. However, considering an area where the proposed 60 dBu contour exceeds the licensed 60 dBu contour as an area of received interference is illogical as the station will clearly enjoy an increase in service, in a portion of the area where the 60 dBu contour is increased.

4. CTI strongly urges the Commission to consider only interference caused, not interference received, as interference received is not interference alone but actually an increase in both service and interference. *Figure 1* attached illustrates this point. The solid contour is the licensed 60 dBu contour of station X for 50 kW at 150 meters HAAT while the dashed line is the 60 dBu contour for an upgrade, at the same site, to 12.5 kW at 300 meters HAAT. The area where the proposed 60 dBu exceeds the licensed 60 dBu is an area that should receive some new service. Under the NPRM, this area would be called an area of received interference and this increased area would be counted against the station trying to achieve an upgrade.

There should be no negative impact to other grandfathered stations if the station proposing an upgrade does not calculate received interference as this would increase the amount of interference that other grandfathered facilities are authorized to cause and provide them as much, or greater, latitude in making a later facility change of their own.

5. The NPRM states that the ready availability of computer-supported analysis now allows both the Commission and the industry to adopt a more accurate and flexible approach. **CTI** currently uses software written by EDX Engineering in Eugene, Oregon which allows overlap areas to be displayed on a screen, areas of interference to be digitized and then saved as a polygon and the polygon area analyzed in terms of area and population. It is believed that similar software solutions are, or will be, available from other broadcast software suppliers such as CDS, Dataworld, Vernier, etc. However, to date, these solutions require some interpretation in terms of locating the actual interference area.

6. **CTI** encourages the Commission, and Reply Commentors, to suggest a specific methodology to be followed so that the engineering community and the FCC processing staff may develop area of interference answers that are equal.

7. Proposal 2 supports elimination of 2nd and 3rd adjacent channel stations from the computation of interference. **CTI** fully supports this proposal. Based on its experience, current day receivers are seldom affected by second and third adjacent channel interference from properly operating stations. The notable exception to this is the relatively small base of inexpensive, continuously tunable, receivers and even many of these have surprisingly good selectivity and interference immunity.

8. In sum, **CTI** urges the Commission to move forward swiftly with this proceeding in an effort to benefit the broadcast community by simplifying the processing procedure for grandfathered stations. The simplified processing would come through, 1) no interference analysis for stations making minor changes at their licensed site or a site within 500 feet of the licensed site, 2) an interference analysis model that is computer implementable which will yield known results, and, 3) removal of 2nd and 3rd adjacent channel stations from interference considerations.

Respectfully Submitted,  
Communications Technologies, Inc.

By: 

Clarence M. Beverage

By: 

Laura M. Mizrahi

Communications Technologies, Inc.  
P.O. Box 1130  
Marlton, NJ 08053  
609-985-0077

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